

Serial No. 10/510,313
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Amendments to the Specification:

Please amend the paragraph [0017] of the specification as follows:

FIG 1 shows various Web servers 3, 10, 15, 20, 24 which are connected to each other directly or indirectly via the Internet 1. A first Web server 3 communicates directly via a connection 2 with the Internet 1. The first Web server 3 contains an expansion module 4 which is connected via an input/output module 6 of an automation system via a connection 5. A second and a third Web server 10, 15 are connected via connections 9, 14, to a firewall 8 and via a connection 7 to the Internet 1. The second Web server 10 features an expansion module 11 which has a connection 12 to a converter 13. The third Web server 15 contains an expansion module 16 which controls a drive 18 via a connection 17. The reference character 20 identifies a fourth Web server, a so-called embedded Web server which is connected directly via a connection 19 to the Internet 1 and features an expansion module 21 which controls a valve 22. The fifth Web server 24 shown in FIG 1 does not have any automation functionality and communicates with the Internet via a connection 23. A Web browser 26 is connected to the Internet 1 via a connection 25.

Please amend the paragraph [0018] of the specification as follows:

The idea behind the invention will now be explained on the basis of FIG 1. A Web server is a process on a computer - or also distributed over a number of computers - and usually supplies very many clients (Web browsers on different devices) with information. This Information can be located either statically on the Web server or can also be generated dynamically by further utility programs. Communication partners usually connected via the Internet 1 are thus Web servers in the embodiment of the fifth Web server 24 and Web browser 26. The fifth Web server 24 Provides information, in general Internet pages, at the request of a Web browser 26 via the Internet 1. The idea of the invention is now to embody such a standard Web server in such a way, by expansion using software modules that it can also deal with automation tasks, especially the control of production machines. The first Web server 3 contains an expansion module 4 which assumes the tasks of a Programmable Logic Control (PLC). The expansion module 4 as part of the Web server 3 is connected for this purpose via a connection 5 to an input/output module of an automation system. The first Web server 3 is thus not only used to provide information over the connection 2 into the Internet 1 but through the integration of the expansion module 4 can execute complex control tasks which with the prior art of technology were only

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able to be executed by self-contained Programmable Logic Controllers. A further exemplary embodiment of a Web server is shown in FIG 1 in the second Web server 10 which features an expansion module 11 with CNC (CNC = Computer Numerical Controlled) functionality. The second Web server 10 controls a production machine, for example a computer-controlled machine tool (CNC machine tool) which is used for fast and accurate manufacturing of complicated turned and milled parts via the expansion module 11. These types of complicated controls are usually executed by computers specially designed for the task. A similar complex control task is control of a drive 18 which the third Web server 15 handles in the exemplary embodiment. To do this it contains an expansion module 16 which handles the demanding tasks of controlling or regulating the drive 18. In order not to waste the benefits of use of Web technologies through the second and third Web server 10, 15 through the disadvantage of lack of security, the Web servers 10, 15 are connected via a firewall 8 to the Internet 1. The firewall 8 effectively prevents illegal access via a communications connection to one of the Web servers and thereby to the drive 18 or the machine tool 13. In a further exemplary embodiment of the invention shown in FIG 1 the Web server with automation functionality is a so-called embedded Web server 20 which contains as an expansion module 21, e.g. a temperature regulator for controlling a valve 22. This embedded Web server 20 is realized for example as a single-chip solution within a Personal Computer (PC). Each of the Web servers 3, 10, 15 or 20 described, in addition to offering the automation functionality of the expansion modules, also offers all the benefits of a standard Web server 24. The Web browser 26 connected via the Internet 1 can thus also access the Web servers 3, 10, 15 ~~and~~ and 20 expanded with additional automation functionalities with Web technologies and can thus be used for example as an operation and monitoring system. The exemplary embodiments shown in FIG 1 clearly show the better scalability of the solution proposed here compared with conventional approaches. The Web server can be implemented as a single-chip Web server with a hardware design (e.g. in the consumer area) through to a high-performance Web server SoftPLC and office software.